

WILDLIFE HARVEST AND POPULATION STATUS REPORT

RING-NECKED PHEASANT – 2007

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2006–07 PHEASANT HUNTING SEASON

In 2006–07, 10,433 pheasant hunters killed 34,306 pheasants statewide; a 7.0% decrease in hunters and a 9.9% increase in harvest from 2005–06 (Figure 1). The estimated 2006–07 pheasant harvest increased 19.9% from the 5-year average (2001–05; 28,614 average harvest; SD 3,310) and decreased 15.4% from the 10-year average (1996–05; 40,526 average harvest; SD 12,960). In 2006–07, pheasant hunters averaged 0.63 birds per day and 5.23 days per season compared to 0.56 birds per day and 4.96 days per season in 2005–06. Average season bag for 2006–07 was 3.29 birds which was an 18.3% increase compared to 2005–06. Regional harvest estimates for 2006–07 showed Northwestern Prairie had the highest harvest (11,845 birds) and Mississippi Lowlands the lowest (0 birds; Figure 2a). During 2006–07, Northwestern Prairie had the greatest number of hunters (3,801) with Mississippi Lowlands the lowest (46); hunters in the Northwestern Prairie spent 5.44 days pheasant hunting compared to 1.00 days in the Mississippi Lowlands.

2007 POPULATION SURVEYS

The Department annually cooperates with more than 450 rural mail carriers in mid-April to monitor the relative distribution of spring pheasant populations in northern and southeastern Missouri; these data also provide a relative with-in year distribution range map. For 2007, rural mail carriers reported 254 pheasants with an index of 0.68 birds per 100 miles (Figure 3).

The August Roadside Survey (ARS) monitors the number of pheasants and pheasant broods observed along 70 standardized 30-mile routes, and has provided a fairly reliable predictor of fall pheasant harvests in previous years. The 2007 statewide results for the number of pheasants observed showed a 36.8% decrease compared to 2006, a 50.4% decrease compared to the 5-year average (2002–06), and a 51.9% decrease from the 10-year average (1997–06; Table 1–2; Figure 4). Pheasant production in 2007, as determined by the number of broods and chicks observed, decreased 40.2% compared to 2006, decreased 58.7% compared to the 5-year average (2002–06), and decreased 61.3% from the 10-year average (1997–06; Table 3–4). Regionally, Northwestern Prairie Northern Riverbreaks tied for the highest index of total

pheasants observed (0.84 birds/30 miles) and Mississippi Lowlands the lowest (0.33 birds/30 miles; Table 1).

During 1988–02, there was a strong relationship ($r=0.81$) between ARS and fall pheasant harvest indicating that ARS may often provide a relatively good predictor of harvest for the upcoming fall season (Figure 3). With this in mind, statewide 2007 pheasant hunting opportunities are expected to be below average compared to previous seasons. Expect hunting opportunities to be best in the Northwestern Prairie and the Northern Riverbreaks, and less in the Northeastern Riverbreaks and the Mississippi Lowlands (Figure 2a). In addition to decreases in the number of pheasants and pheasant broods observed in around the state year (Table 1–4), these relative trend values are well below trend values observed in other Midwestern states that comprise the primary pheasant range. For example, comparable data from Iowa's August Roadside Survey for 2007 showed 26.8 birds/30-mile route. Hunting opportunities will vary depending upon severe localized weather events during the nesting and brood-rearing season, and the resulting effects of those weather conditions on habitat.

PHEASANT RANGE EXPANSION PROGRAM

The Department attempted to expand the pheasant range in 14 northern Missouri counties by relocating wild-trapped birds during 1987–00; all 23 targeted sites have been completed (Table 5). Evaluation and monitoring data indicates mixed results. Some release sites showed relatively high numbers of crowing males along survey routes adjacent to the release sites, and showed some birds expanding into surrounding areas. Some releases showed relatively good numbers of birds around the release site, but the birds did not become numerous enough to be observed by rural mail carriers. Other release sites showed perpetually low numbers of birds that never disappeared, but never established thriving wild populations. Some releases were classified as failures for various reasons. Overall, the program appears to have been unsuccessful at expanding the pheasant range southward in a meaningful long-term fashion.

Table 1. The number of all pheasants observed along 30-mile routes during August 1–15 by Zoogeographic regions (see Figure 2a), and relative change through time.

Zoogeographic regions	2007 Index	2-year (2006-2007) % change	5-year (2002-2006) % change	10-year (1997-2006) % change
Northwest Prairie (19)	1.63	-59.74	-58.21	-59.98
Northern Riverbreaks (19)	1.42	129.55	-31.55	-41.37
Northeast Riverbreaks (23)	1.00	-42.86	-52.76	-41.55
Western Prairie (3)	0.00	-100.00	-100.00	-100.00
Mississippi Lowlands (6)	0.33	.	100.00	-37.50
STATEWIDE (70)	1.19	-36.82	-50.35	-51.91

NOTE: When data from the southeastern Mississippi Lowlands region are recorded as zero (0) number of pheasants per 30-mile survey routes; relative changes from year-to-year would be meaningless.

Table 2. The number of all pheasants observed along 30-mile routes during August 1–15 by Missouri Department of Conservation (MDC) management regions (see Figure 2b), and relative change through time.

MDC management regions	2007 Index	2-year (2006-2007) % change	5-year (2002-2006) % change	10-year (1997-2006) % change
Northwest (34)	1.71	-35.56	-50.35	-53.57
Northeast (23)	1.00	-38.10	-46.95	-38.96
Kansas City (3)	0.00	.	-100.00	-100.00
Central (4)	0.00	-100.00	-100.00	-100.00
Southeast (6)	0.33	.	100.00	-37.50
Statewide (70)	1.19	-36.82	-50.35	-51.91

NOTE: When data from the southeastern Mississippi Lowlands region are recorded as zero (0) number of pheasants per 30-mile survey routes; relative changes from year-to-year would be meaningless.

Table 3. The number of all pheasant chicks (juveniles) observed along 30-mile routes during August 1–15 by Zoogeographic regions (see Figure 2a), and relative change through time.

Zoogeographic regions	2007 Index	2-year (2006-2007) % change	5-year (2002-2006) % change	10-year (1997-2006) % change
Northwest Prairie (19)	0.84	-61.90	-66.08	-68.33
Northern Riverbreaks (19)	0.84	253.68	-34.50	-47.52
Northeast Riverbreaks (23)	0.39	-59.17	-69.92	-64.67
Western Prairie (3)	0.00	-100.00	-100.00	-100.00
Mississippi Lowlands (6)	0.33	.	.	400.00
STATEWIDE (70)	0.61	-40.21	-58.69	-61.31

NOTE: When data from the southeastern Mississippi Lowlands region are recorded as zero (0) number of pheasants per 30-mile survey routes; relative changes from year-to-year would be meaningless.

Table 4. The number of all pheasant chicks (juveniles) observed along 30-mile routes during August 1–15 by Missouri Department of Conservation (MDC) management regions (see Figure 2b), and relative change through time.

MDC management regions	2007 Index	2-year (2006-2007) % change	5-year (2002-2006) % change	10-year (1997-2006) % change
Northwest (34)	0.94	-31.91	-56.82	-61.00
Northeast (23)	0.39	-55.77	-65.65	-63.27
Kansas City (3)	0.00	.	.	-100.00
Central (4)	0.00	-100.00	-100.00	-100.00
Southeast (6)	0.33	.	.	400.00
Statewide (70)	0.61	-40.21	-58.69	-61.31

NOTE: When data from the southeastern Mississippi Lowlands region are recorded as zero (0) number of pheasants per 30-mile survey routes; relative changes from year-to-year would be meaningless.

Table 5. Release sites and numbers of wild-trapped pheasants per release, 1987-00.

RELEASE AREA	COUNTY	COMPLETED	NO. BIRDS (M:F)	SOURCE OF BIRDS
Novelty	Knox	1989	226 (66:145) (15 unk. sex)	Squaw Creek NWR Nebraska
*Franklin Island	Howard	1989	178 (58:120)	Squaw Creek NWR Mar. Tem. Clair CA
New Cambria	Macon	1990	100 (30:70)	Kansas
*Ardmore	Macon	1990	138 (53:85)	Squaw Creek NWR Kansas
Hannibal	Marion	1990	123 (22:101)	Squaw Creek NWR Bilby Ranch CA Bob Brown CA
Smileyville	Marion	1990	97 (21:76)	Kansas
Kaseyville	Randolph Macon	1991	143 (34:109)	Nebraska
Clifton Hill	Randolph	1991	144 (34:110)	Nebraska
Bethel	Shelby	1991	143 (33:110)	Bilby Ranch CA Grand Pass CA Bob Brown CA
Glasgow	Howard Chariton	1991	141 (27:114)	Kansas
Salisbury	Chariton	1991	135 (25:110)	Kansas
Rothville	Chariton	1993	112 (19:93)	Bob Brown CA South Dakota
Mendon	Chariton	1993	135 (38:97)	South Dakota Mo. Private Land
Bogard	Carroll	1993	123 (33:90)	South Dakota
Roads	Carroll	1993	121 (23:98)	South Dakota Mo. Private Land
Plymouth	Carroll	1994	176 (23:153)	South Dakota Mo. Private Land
Regal	Ray	1994	219 (39:180)	South Dakota
Stet	Ray	1994	179 (54:125)	South Dakota
Braley	Clinton	1996	141 (28:113)	South Dakota
West Keystone	Clinton	1996	165 (27:138)	South Dakota
Starfield	Clinton	1996	173 (40:133)	South Dakota
Plattsburg	Clinton	1996	156 (19:137)	South Dakota
Wexford	Clinton	2000	116 (32:84)	South Dakota

*Release sites classified as failures.

Missouri Pheasant Hunters and Harvest

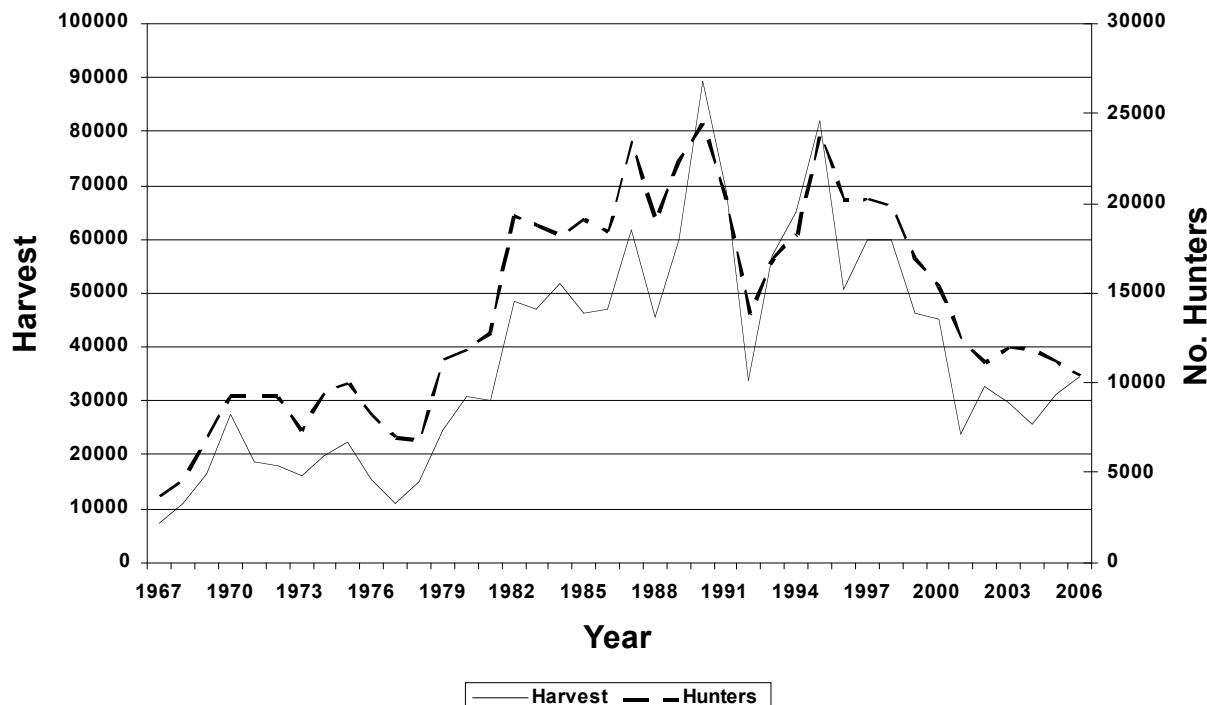


Figure 1. Number of ring-necked pheasant hunters and harvest estimated by the small-game post-season harvest mail survey (1967–06).



Figure 2a. Zoogeographic regions of Missouri.

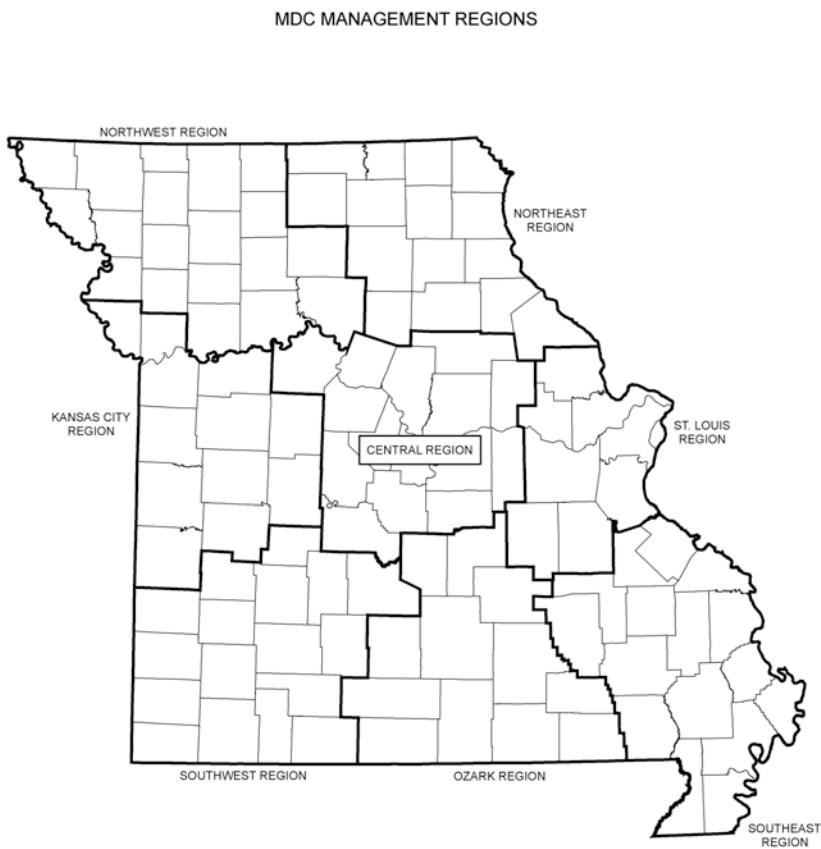


Figure 2b. Missouri Department of Conservation (MDC) management regions.

2007 MISSOURI SPRING PHEASANT DENSITIES

FROM RURAL MAIL CARRIER SURVEYS

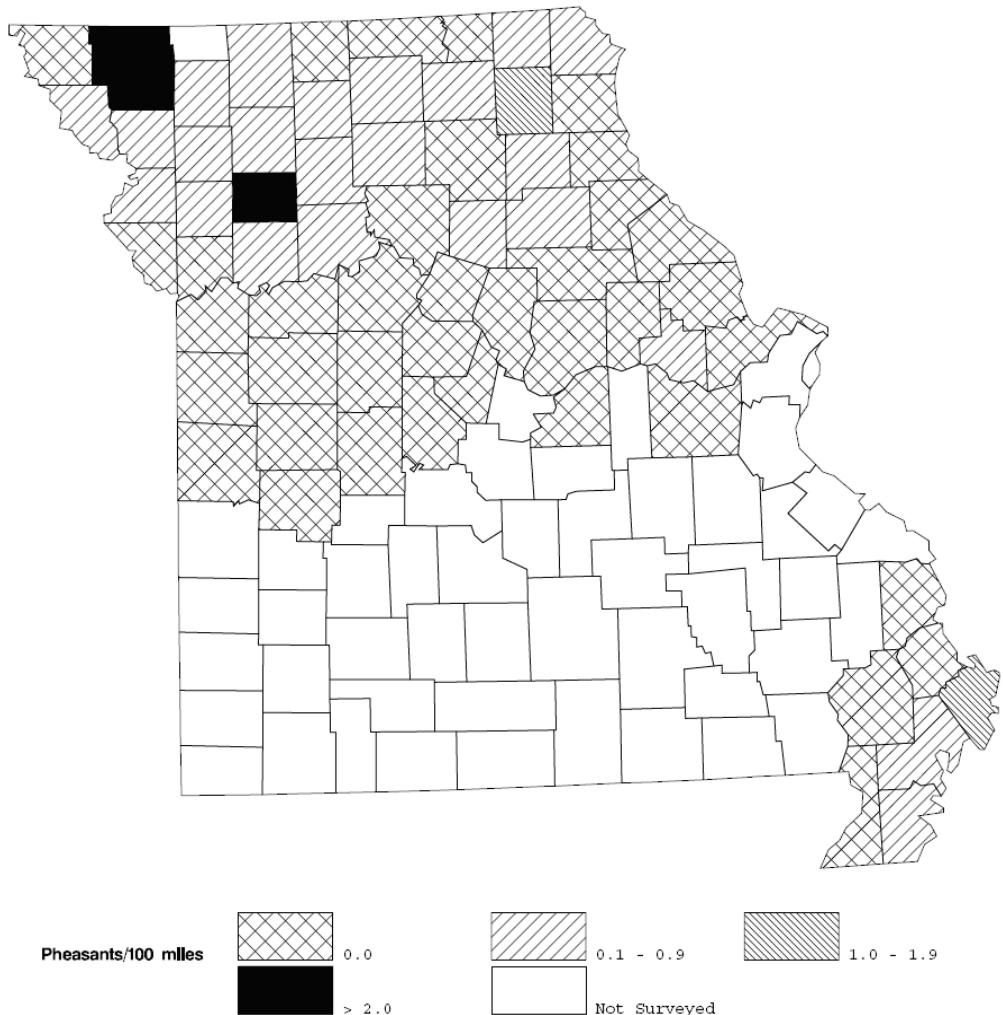


Figure 3. Relative distribution of Missouri spring pheasant populations derived from 455 completed rural mail carrier surveys, during mid-April 2007.

Missouri Pheasant Trends

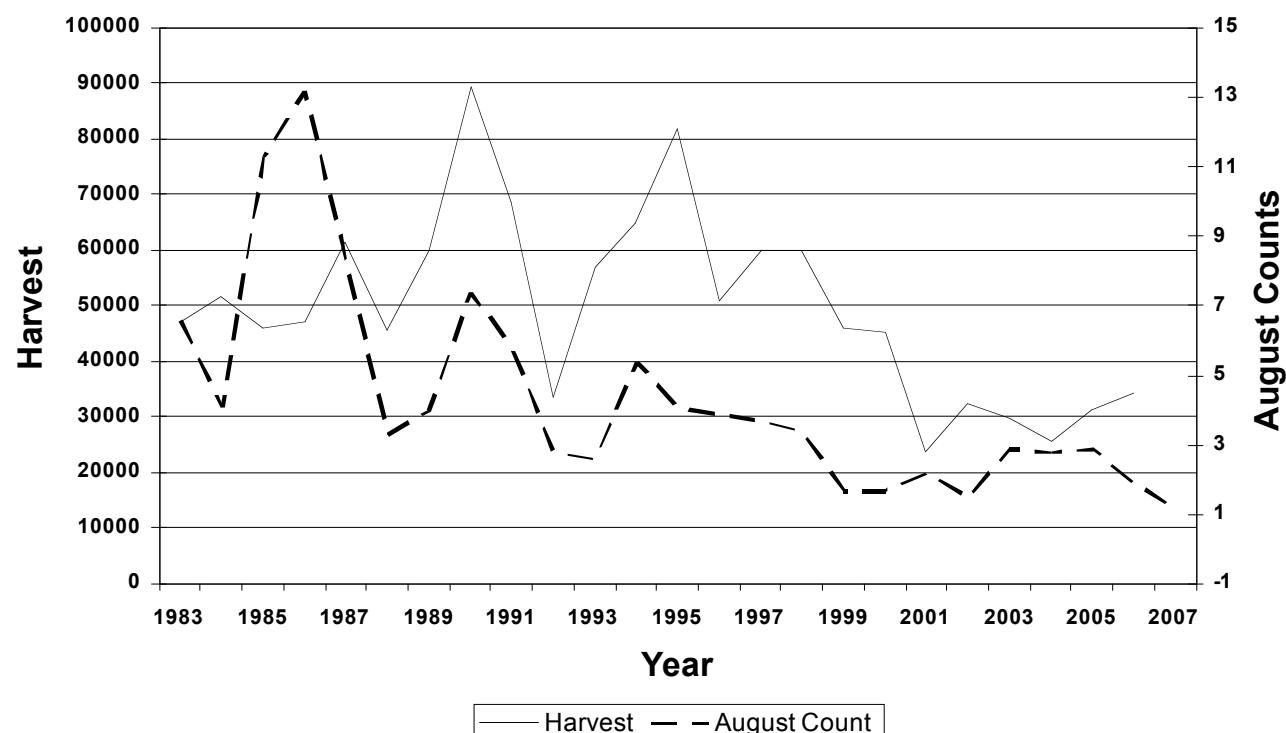


Figure 4. Estimated ring-necked pheasant harvest from the small-game post-season harvest mail survey (1983–06), and relative population trends from the August Roadside Survey (1983–07).